***Geometry Unit 4 – Trigonometry Review***

**Part 1:** You should be able to label all sides and angles in a right triangle.

Label in the triangles below: *theta, opposite, adjacent, hypotenuse*

**Part 2:** You should be able to find the sine, cosine, or tangent proportions from a triangle.

48

73

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

55

**Part 3:** You should be able to find the missing sides of a triangle using trig.

3.) Find the perimeter.

2.)

1.)

49o

6

x

y

42o

17

x

28o

x

21

**Part 4:** You should be able to find missing angles of a triangle using inverse trig.

5.)

4.)

?

19

99

?

85

102

**Part 5:** You should be able to apply all topics of this unit to word problems.

6.) A photo frame has the dimension below. Find the width of the frame.

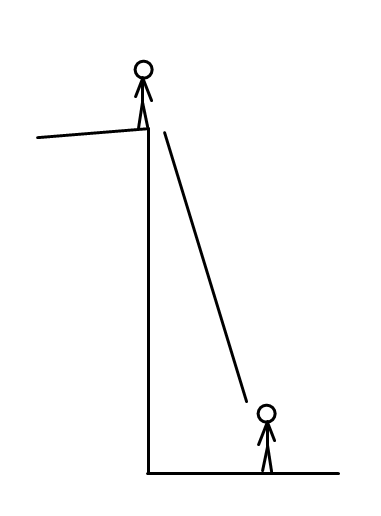


x

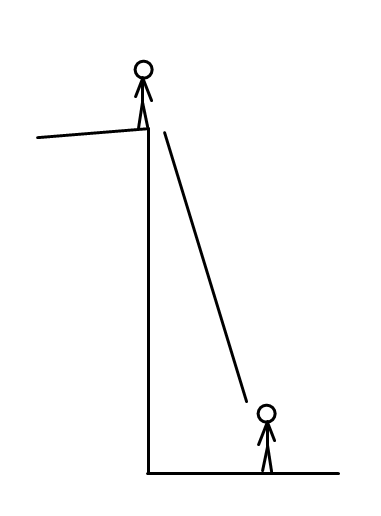
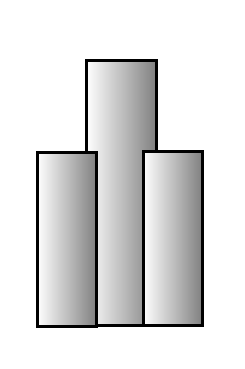
13 cm

40o

7.) A man standing on the top of a 135 foot cliff looks down at an angle of 16o and sees his friend walking near the bottom. What is the distance between the man and his friend?



8.) You are standing on the ground 700 meters away from Detroit’s tallest building, the Renaissance Center. You are looking at an angle of elevation of 17.6o and see the top. How tall is the building?

9.) An airplane is coming in to land at an airport with an angle of depression of 7o. It needs to drop 450 feet vertically. What will be the distance of the actual path that the plane takes through the sky?

**Solutions**

Part 2

Part 3

1.) 18.5

2.) 25.4

3.) ,

,

Part 4

4.) 56.4o

5.) 79.1o

Part 5

6.) 15.5 cm

7.) 140.4 ft

8.) 222.1 meters

9.) 3692.5 feet